

I claim:

1. A method for rubbing alignment films, comprising the steps of:
providing a glass substrate having a visible region and an invisible
5 region;
coating an alignment film onto the glass substrate;
conveying the glass substrate along a predetermined direction; and
while the glass substrate is in conveying, applying an inversed roller
with cloth on a surface thereof to rub the alignment film at an in-
10 stream direction the same as the predetermined direction so as to make
chips rubbed off the alignment film not to hard contact with the
alignment film on the visible region which has been rubbed by the
cloth.
2. The method for rubbing alignment films according to claim 1, wherein
15 said alignment film is made of a polyamic acid or a polyamide.
3. The method for rubbing alignment films according to claim 1, wherein
said alignment film has a thickness of 500 to 1000 angstroms.
4. The method for rubbing alignment films according to claim 1, wherein
said glass substrate and said inversed roller form a predetermined angle.
- 20 5. The method for rubbing alignment films according to claim 4, wherein
said predetermined angle is about 45°.
6. The method for rubbing alignment films according to claim 1, wherein
said visible region locates at a central area of said glass substrate and
includes a plurality of thin film transistors or transparent electrodes.
- 25 7. The method for rubbing alignment films according to claim 1, wherein
said invisible region surrounds said visible region.

8. An apparatus for rubbing alignment films, comprising:

a carrier plate for bearing a glass substrate having an on-top alignment film thereon, the glass substrate including a visible region and an invisible region;

5 a conveying device for transporting the carrier plate as well as the glass substrate along a predetermined direction; and

an inversed roller for rubbing at an in-stream direction the same as the predetermined direction the alignment film of the glass substrate transported by the conveying device, the inversed roller having
10 cloth on a surface of the glass structure to rub the alignment film.

9. The apparatus for rubbing alignment films according to claim 8, wherein said alignment film is made of a polyamic acid or a polyamide.

10. The apparatus for rubbing alignment films according to claim 8, wherein said alignment film has a thickness of 500 to 1000 angstroms.

15 11. The apparatus for rubbing alignment films according to claim 8, wherein said glass substrate and said inversed roller form a predetermined angle.

12. The apparatus for rubbing alignment films according to claim 11, wherein said predetermined angle is about 45°.

20 13. The apparatus for rubbing alignment films according to claim 8, wherein said visible region locates at a central area of said glass substrate and further includes a plurality of thin film transistors or transparent electrodes.

25 14. The apparatus for rubbing alignment films according to claim 8, wherein said invisible region surrounds said visible region.